

I 57841-65

ACCESSION NR: AP5015254

ENCLOSURE: 01

0

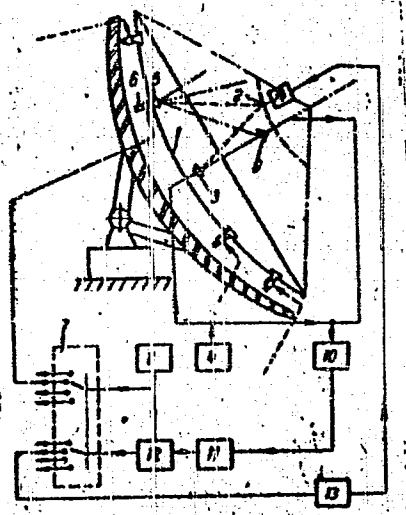


Fig. 1. Two-mirror antenna

- 1 - Large mirror; 2 - small mirror; 3 - radiating horn;
- 4 - phasing pickup; 5 - reflecting horn; 6 - modulators;
- 7 - switches; 8 - oscillator;
- 9 - horn; 10 - detector;
- 11 - amplifier; 12 - synchronous detector; 13 - amplifier;
- 14 - drive.

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L 11079-66 ENT(1)/T/FCS(k) WR

ACC NR: AP6000553

SOURCE CODE: UR/0109/65/010/012/2119/2124

AUTHOR: Deryugin, L. N.; Kuznetsov, M. G.

ORG: none

TITLE: Angle-frequency sensitivity of antenna arrays and its connection with characteristics of feed waveguide

SOURCE: Radiotekhnika i elektronika, v. 10, no. 12, 1965, 2119-2124

TOPIC TAGS: antenna array, antenna feed, waveguide antenna

ABSTRACT: The angle-frequency sensitivity of an array is:

$$0 = f \frac{d\varphi}{df} = \frac{1}{\cos \varphi} (\gamma - \sin \varphi),$$
 where  $\varphi$  is the radiation angle,  $f$  is the frequency,  $\gamma$  is the group delay in a feed waveguide (zigzag or resonator-chain type), which excites the antenna with TW. As neither array parameter nor beam number determines the angle-frequency sensitivity, the latter can also be regarded as a characteristic of the feed waveguide. These conclusions are drawn: (1) Any waveguide system possesses an angle-frequency sensitivity; (2) For regular 2-wire lines and air-filled wave-

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UDC: 621.396.677.715.095.7

L 11079-66

ACC NR: AP6000558

guides, which have  $\gamma = 1-1.5$ , the angle-frequency sensitivity is  $0.6-0.8^\circ$  per 1% frequency variation; (3) The angle-frequency sensitivity sharply increases when the radiation angle approaches  $\pm 90^\circ$  (except when  $\gamma = 1$ ); (4) The angle-frequency sensitivity is always positive which means that with increasing frequency, the beam shifts away from the oscillator; (5) An integral relation between the radiation angle and the frequency, for any beam, can be deduced; (6) Higher angle-frequency sensitivity is connected with higher ratio of per-unit-length energy to through power. Formulas establishing relations between the angle-frequency sensitivity, losses, and maximum through power are also derived. Orig. art. has: 1 figure and 19 formulas.

SUB CODE: 09 / SUBM DATE: 10Aug64 / ORIG REF: 001

HW  
Card 2/2

L 27542-66

EWI 11-002

ACC NR: AP6007495

SOURCE CODE: UR/0109/66/011/002/0187/0194

AUTHOR: Deryugin, L. N.; Kuznetsov, M. G.

ORG: none

TITLE: Angular transparent sectors in the antenna with periodic waveguides

SOURCE: Radiotekhnika i elektronika, v. 11, no. 2, 1966, 187-194

TOPIC TAGS: waveguide antenna, antenna theory, radar antenna

ABSTRACT: <sup>15B</sup> Scanning arrays based on periodic waveguides and chains of phase shifters are theoretically considered. By proper selection of array parameters, the specified scanning sector can be placed within the transparent sector of the array; however, this may entail a limitation of the structure period and increased losses. The relations among the period, scanning and transparent sectors, efficiency, gain, and other characteristics are analyzed in this article; frequency-scanning antennas are dealt with. Formulas for the transparent-sector width and structure period are developed. Transparency patterns are constructed for the integer number of units between radiators; methods of obtaining phase-shifts — unequal waveguide taps,

UDC: 621.396.677.731

L 27542-66

ACC NR: AP6007495

adjustable couplings, waveguide-slit arrangements, two-type phase taps — are discussed. Waveguides with odd-cell symmetry (zigzag, interdigital combs, two-tier resonator chain) are also considered. The above formulas are also applicable to equidistant arrays with nonfrequency scanning. Orig. art. has: 12 figures and 9 formulas.

SUB CODE: 17, 09 / SUBM DATE: 10Aug64 / ORIG REF: 002

Card 2/2

B.G.

DERYUGIN, N. G.

TELEVISION

"Power Spectrum and Correlation Function of Television Signal," by  
N. G. Deryugin, Elektrosvyaz', No 7, July 1957, pp 3-14

It is shown that the analytical expressions for both the power spectrum and for the correlation function of a television signal are best considered in the form of products of three simple functions. These three functions are determined experimentally for the power spectrum. The correlation function of the television signal can be calculated from the approximated experimental curves.

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- 36 -

SOV-109-3-6-8/27

AUTHOR: Deryugin, N. G.

TITLE: Certain Statistical Characteristics of Television Signals  
(Nekotoryye statisticheskiye kharakteristiki televizionnogo signala)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol 3, Nr 6,  
pp 777-783 (USSR)

ABSTRACT: A television signal is a random process which can be characterised by an ensemble of n-dimensional probability distribution functions. However, in practice the study of the probability distribution has to be limited to 1- or 2-dimensional functions. An investigation of this type was carried out by using the television signals transmitted by the Moscow television centre. First, the measurements of the uni-dimensional probability  $P(x)$  distribution was carried out.  $P(x)$  denotes the dependence of the probability on the signal levels. Experimentally this dependence can be determined by means of an oscillographic tube in which the time base is replaced by the investigated signal. The average time during which the electron beam finds itself at a given point of its path is then directly proportional to the investigated distribution. It is therefore necessary to measure the average beam current at various points of the

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SOV-109-3-6-8/27

Certain Statistical Characteristics of Television Signals

"time base" or the average values of the brightness which is proportional to the current. The measurement of the average current is more accurate and this method was employed in the present work. The experimental equipment was as shown in Fig.1: the cathode ray tube was a standard type 8L029 tube; except that it was fitted with a special selector electrode; this had dimensions of 3 x 6 mm and was fixed in the centre of the screen. In the absence of the investigated signal, the operating conditions of the tube were such that the selector current as a function of the electron beam deflection, was in the form shown in Fig.2. The resulting distribution curve was as shown by graph 2 of Fig.3; this graph could be approximated by

$$p(x) = 68e^{-0.045(x-12.7)^2}$$

and the approximation is shown by the dashed curve in Fig.3. If a test picture was used in the investigation, the

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SOV-109-3-6-8/27

Certain Statistical Characteristics of Television Signals

probability distribution is in the form of the curve shown in Fig.4, from which it follows that the distribution cannot be regarded as a random function. The 2-dimensional distribution  $p(x_i, x_j)$  denotes the dependence of the probability density on various possible values of two signal samples  $x_i$  and  $x_j$ , which are separated from each other by equal time intervals. The 2-dimensional distribution can also be determined by means of a cathode ray tube. In this case it is necessary to apply two identical signals to the two deflection systems of the tube; one of the signals is delayed with respect to the other by one picture element. The average beam current or the brightness corresponding to it will then characterise the investigated distribution. The measurements were made by means of the equipment which is represented by the block schematic of Fig.5. This consisted of: 1: a television receiver, 2: a cathode follower, 3: an amplifier, and 4: a delay line. The actual measurements were carried out during the transmissions of cinematographic films, since these were thought to provide the highest available variety of subjects and contrasts. The distribution was measured by photographing the brightness of the

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SOV-109-3-6-8/27

Certain Statistical Characteristics of Television Signals

screen onto a photographic plate. The total time of exposure of the plate was 2 to 3 minutes. The resulting 2-dimensional distributions are shown in Fig.6. From these it follows that the 2-dimensional distribution obeys the normal law and can be described by:

$$f(x, y) = \frac{h}{\pi} e^{-(ax^2 + 2abxy + cy^2)} \quad (1)$$

The oscillograms of Fig.6 were used to determine the correlation coefficient for the television signals and this was found to be equal to  $r = 0.93$ . On the basis of the above investigations it is shown that it is possible to increase the channel efficiency in television transmission. Thus it should be possible to reduce the average transmitted power by about 9 times. On the other hand, an increase in the efficiency of the channel can be secured by decreasing its

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SOV-109-3-6-8/27

Certain Statistical Characteristics of Television Signals

bandwidth. Theoretically this bandwidth should be reduced to half the normal bandwidth without impairing the signal-noise ratio of the channel. The author thanks N. K. Ignatyev for valuable advice. The paper contains 7 figures and 3 references, 2 of which are Soviet and 1 English.

SUBMITTED: December 18, 1956

1. Video signals - Properties
2. Video signals - Mathematical analysis
3. Functions -- Applications
4. Random distribution - Applications

Card 5/5

DERYUGIN, N.G.

Theoretical possibilities for reducing the passband of television  
channels. Elektrosviaz' 12 no.8:9-12 Ag '58. (MIRA 11:8)  
(Television)

DERYUGIN, N. G., Candidate of Tech Sci (diss) -- "Investigation of the static characteristics of a television signal". Moscow, 1959, published by Svyaz'izdat. 11 pp (Min Communications USSR, Moscow Electrical Engineering Inst of Communications), 200 copies (KL, No 22, 1959, 115)

DERYUGIN, N. G.

<p>В. А. Кривоноз Переход от неавтономных телеграфных про- грамм к общему каналу связи</p> <p>12 июня (с 10 до 16 часов)</p> <p>М. И. Кривоноз Изобретение фактуральных сигналов в телеграфии</p> <p>В. А. Кривоноз О применении фазового метода синхронизации и не- матричных системной частоты телеграфных</p> <p>С. А. Радченко Переход от применения фактуральных для рече- вых каналов системной частоты</p> <p>М. Г. Давыдов Турбо-аппарат для передачи телеграфных каналов</p> <p>12 июня (с 18 до 22 часов)</p> <p>В. А. Кривоноз Телеграфная передача сигнала с помощью платины</p> <p>30</p>	<p>И. Г. Никитин Телеграфная система, использующая штурман- скую на передаче и приеме сигналов</p> <p>М. И. Кривоноз Устройство для двусторонней передачи</p> <p>В. А. Кривоноз М. Г. Давыдов О применении фактуральных сигналов в телеграф- ных системах передачи</p> <p>7. СЕАНС ЭЛЕКТРОННИК Руководитель М. А. Давыдов</p> <p>9 июня (с 10 до 16 часов)</p> <p>Г. И. Рузанов, Г. И. Копылов Новые методы радиотелеграфной связи и радио- телеграфной</p> <p>В. А. Кривоноз Переход от системной частоты к частоте передачи сигнала СВЧ</p> <p>31</p>
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report submitted for the Commemorial Meeting of the Scientific Technological Society of  
Radio Engineering and Electrical Communications St. A. S. Pigov (VSEIE), Moscow,  
8-12 June, 1959

05371  
SOV/106-59-8-3/12

AUTHOR: Deryugin, N.G.

TITLE: Apparatus for Measuring the Amplitude-characteristic of a Television Channel

PERIODICAL: Elektrosvyaz', 1959, Nr 8, pp 24 - 30 (USSR)

ABSTRACT: With given television terminal equipment, it is possible to obtain a linear light - light characteristic only by using gamma-correctors to correct for the amplitude-characteristic of the channel. Measurement of the amplitude-characteristic of the channel is therefore necessary and the point-by-point method of measurement is time-consuming and accurate results are obtained only with difficulty. It is therefore convenient to use test signals which, after passing through the equipment under test, will show the black-to-white part of the amplitude characteristic directly. The amplitude-characteristic measuring apparatus (IAKh) was developed for this purpose. Such apparatus simplifies checking and detection of faulty operation in television stations. It can also be used to measure the phase change and to take the modulation characteristic of a receiver tube.

Card1/3 Although the test signals can be any shape, in the apparatus

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SOV/106-59-8-3/12

Apparatus for Measuring the Amplitude-characteristic of a Television Channel

saw-tooth and step signals are used. The test signals are located between line quenching pulses. The test signals at the output of the equipment under test are distorted in accordance with the amplitude-characteristic of the channel and these distortions can be displayed on an oscillograph but if accuracy is required, the output signals are first "processed" by differentiation or by obtaining the difference between the input and output signals.

For finding the amplitude characteristic of a wideband channel, a high-frequency sinusoidal signal (above 1 Mc/s) can be superimposed on the saw-tooth or step signal. The envelope of the HF signal shows the change in the gain of the path for different input signal levels and by displaying this envelope on the CRT screen, the deviation of the amplitude characteristic from linear can be seen and measured. The author then gives the basic technical details of the signals and describes the block diagram of the apparatus (Figure 1). The waveforms at various points in the circuit are shown in Figures 2-4. The method of measurement of the

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Apparatus for Measuring the Amplitude-characteristic of a Television Channel

amplitude-characteristic is then described in detail. The apparatus was developed by the author together with Engineers N.I. Grishina and L.F. Yefimova, under the leadership of S.V. Novakovskiy. There are 5 figures and 3 references, of which 2 are English and 1 Soviet.

SUBMITTED: April 23, 1959

Card 3/3

27778

S/106/61/000/008/002/006

A055/A127

6,6000  
AUTHOR:

Deryugin, N. G.

TITLE:

Perceptibility of the coloration of the grey scale in color television

PERIODICAL: Elektrosvyaz', no. 8, 1961, 26-34

TEXT: In three-color television, it is essential to know the tolerance as regards the difference between the values of  $k$  (amplification factor, and also of  $\gamma$  (of the transfer characteristic), in the three channels. The present article deals with the determination of this tolerance. The usual method of visual observation of color distortion, such as it is described by Dillenburgen [Ref. 1: "Pegelhaltung in Farbfernseh-Anlagen", "AEÜ", 1957, bd. 11, no. 5] and Jacobs, Jackson [Ref. 2] can lead to erroneous estimates and conclusions. To minimize such errors, the author proposes to use a grey scale on the color receiver screen. To reproduce this scale, it is necessary to have three equal signals at the outputs of the red, green and blue channels. Any variation in one of these signals causes a coloration of the grey scale, which the eye will perceive much easier than it does perceive a color shift in the usual observation

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A055/A127

Perceptibility of the coloration ...

method. Twenty observers took part in the determination of  $k$  and  $\gamma$  tolerances according to the author's method. A television receiver with shadow mask was used. The grey scale on the kinescope screen consisted of ten vertical bands with different brilliance. The apparatus used for a determination of the  $k$ -tolerance contained a voltage divider and four switches. One of the switches was set on the position corresponding to a determined variation of  $k$  in a channel. Another switch was then set on the position permitting to reproduce the grey scale with distortions. On the basis of averaged observations, a general average estimate and a critical estimate were computed for every observer. The average estimate was the arithmetical mean of all observations: 50% of the observers give an estimate above this average estimate, and 50% below it. This estimate characterized the average observer. The critical estimate was determined on the basis that 90% of the observers give an estimate above it, and 10% below it. This estimate characterized the critical observer. Graphs were plotted at  $k > 1$  and at  $k < 1$  for the red, green and blue channels on the basis of the estimates given by average and critical observers, and the  $k$ -tolerance for the three channels was determined by means of these graphs. Distortions were considered admissible if the average observers gave the optimum estimate "4" (corresponding to a barely perceptible coloration), and the critical

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Perceptibility of the coloration ...

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observer the estimate "3.5". The k-tolerances thus obtained were than computed in chromatic discrimination thresholds according to Mac-Adam. The apparatus used for determining the  $\gamma$ -tolerance is shown in a figure. The stepped signal is applied to the two-channel gamma-corrector, to whose output is connected a voltage divider. If the total amplitudes of the signals at the output of the gamma-corrector and of the amplifier are equal, it is possible, with the aid of the switch  $S_1$ , to change  $\gamma$  at constant amplification. The magnitude of  $\gamma$  depends on the setting of  $S_1$ . The addition of two signals with  $\gamma \neq 1$  and  $\gamma = 1$  results in a transfer characteristic different from an exponential, but this proves immaterial. During the tolerance determination, the gamma of the resulting transfer characteristic varied from 1 to 1.3 (the gamma-corrector being then adjusted to  $\gamma = 0.45$ ), or from 1 to 0.7 (the gamma-corrector being adjusted to  $\gamma = 0.32$ ). The estimates were computed as in the determination of the k-tolerance, and analogous graphs were constructed, permitting to determine the  $\gamma$ -tolerance for the red, green and blue channels. Conclusions: Human sight being extremely sensitive to color distortions due to variations of k, it is necessary that the deviation of k from the required value in the red, green and blue channels should not exceed  $\pm (0.3 - 0.5)\%$ . On the other hand, it is also necessary that the difference in the transfer characteristics of the three

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Perceptibility of the coloration ...

channels should not exceed  $\pm (2 - 3)\%$ . There are 11 figures, 5 tables and 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc. The references to English-language publications read as follows: Ref. 2: Jacobs, Jackson. An investigation into the subjective effects of some differences between the red, green and blue transfer characteristics of a color television system. "Acta Electronica" 1957-58, v. 2, no. 1-2. Ref. 5: Mac Adam. Quality of color reproduction. "Proc.IRE", 1951, v. 39, no. 5.

SUBMITTED: October 20, 1960

Card 4/4

28578

S/187/61/000/010/003/007  
D053/D113

6.6000 (incl 1159)

AUTHORS: Deryugin, N.G., and Voronetskiy, G.V.

TITLE: Restoration of blanking and synchronizing pulses in the video signal after magnetic recording

PERIODICAL: Tekhnika kino i televideniya, no. 10, 1961, 38-41

TEXT: The authors describe a special device for restoring the blanking and synchronizing pulses in the composite video signal which have been reproduced from the magnetic tape. A bloc diagram of this device, which is called a pulse-shaping amplifier, is shown in Fig. 1. The peak-to-peak amplitude of the input video signal should be not less than 0.3 V and of positive polarity. The peak-to-peak amplitude of the video signal at the amplifier output is 1.5 V of positive polarity across a 75-ohm load resistance. The amplifier has 3 independent video outputs designed for operation with a 75-ohm coaxial cable and 2 sync mixture outputs with a 5-V peak-to-peak amplitude of signals across a 75-ohm load resistance. Nonuniformity of the frequency response of the amplifier video channel is  $\pm 1$  db in the 0.5 - 6 Mc bandwidth. Image resolution of the C249 test pattern is 600 lines at the amplifier output. The width

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X

Restoration of blanking and ...

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D053/D113

of the line and frame blanking pulses can be regulated within 10% limits. The leading edges of line and frame pulses and of the sync mixture corresponds to the ~~ГОСТ~~ 7845-59 (GOST 7845-59) standard. The supply is from a stabilized 150 and 250 V d-c source. A trial operation of this pulse-shaping amplifier showed that it could eliminate considerable distortions of the blanking and synchronizing pulses without impairing the TV-image quality. Such a device is necessary in a video recording unit and it can also be successfully employed in the final receiving points of long-distance TV cable and radio-relay lines. There are 6 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: R.M. Dolbly, The Video Processing Amplifier in the Ampex Videotape Recorder, SMPTE, 1958, 67, No. 11, 726-729.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut Ministerstva svyazi SSSR (State Scientific Research Institute of the Ministry of Communications of the USSR)

X

Card 2/4

DERYUGIN, N.G.

Change in the signal to noise ratio in the image with  
electronic masking of color television motion picture  
films. Elektrosviaz' 16 no.9:42-52 S '62. (MIRA 15:9)  
(Color television)



DERYUGIN, N.G.

Electronic color corrector for color television. Elektrosviaz' 17 no.11:  
33-41 N '63. (MIRA 17:1)

DERYUGIN, N.G.

Accuracy of black color transmission in color television.  
Elektrosviaz' 18 no.4:43-47 Ap '64. (MIRA 17:6)

**AUTHORS:** Simonov, N.A. and Deryugin, N.V., Engineers. 111-58-7-5/27

**TITLE:** The Automation of Radio Receiving Centers (Avtomatizatsiya priyemnykh radiotsentrov)

**PERIODICAL:** Vestnik svyazi, 1958, Nr 7, pp 7-10 (USSR)

**ABSTRACT:** The authors examine the basic principles of the construction of automated radio receiving centers and the nature of receiving equipment needed for such centers. They proposed the adaptation of a mixed remote-control and program control system, where in the latter, the control commands and signals are coded and recorded on tape and transmitted to the receiving center. The center would then be remotely controlled from a radio-bureau. Such a control system is described and represented in block form in Figure 1. Using this system, special receiving equipment of the type represented in Figure 2 is necessary. This consists of two superheterodyne receivers with double frequency conversion ultimately combining together in the 2nd IF stage. The system provides for a third heterodyne and AF amplifier for amplitude telegraph work. The preselector tuning scheme is shown in Figure 3.

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The Automation of Radio Receiving Centers

111-58-7-5/27

Automatic tuning of the selected wave length is carried out by selecting the frequency of the first heterodyne which is given a stable working regime by the use of quartz crystals and automatic re-tuning. Separation of the synchronic manipulating frequency is achieved automatically by synchronizing the quartz generators by means of automatic phase control.

There are three block diagrams.

1. Radio stations—Automation

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PHASE I BOOK EXPLOITATION

SOV/5245

Ministerstvo svyazi SSSR. Tekhnicheskoye upravleniye

Novyye razrabotki v oblasti radiosvyazi i radioveshchaniya; informatsionnyy sbornik (New Developments in the Field of Radio Communication and Radio Broadcasting; Informational Collection) Moscow, Svyaz'izdat, 1959. 80 p. 11,500 copies printed. (Series: Tekhnika svyazi)

Resp. Ed.: A. S. Vladimirov; Ed.: V. I. Bashur; Tech. Ed.: G. I. Shefer.

**PURPOSE:** This collection of articles is intended for technical personnel concerned with the development and operation of radio communication and radio broadcasting.

**COVERAGE:** The book contains, according to the Foreword, information on new developments realized at the Gosudarstvennyy nauchno-issledovatel'skiy institut Ministerstva svyazi SSSR (State

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. New Developments in the Field (Cont.)

SOV/5245

Scientific Research Institute of the Ministry of Communication USSR). Radio communication and radio broadcasting apparatus are described. Several articles are concerned with the development of new checking and measuring instruments. No personalities are mentioned. There are no references.

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New Developments in the Field (Cont.)	SOV/5245
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AVAILABLE: Library of Congress: (TK6563.R92)

Card 3/3

JP/dfk/ec  
6-15-61

DERYUGIN, P.S., mostovoy master (g. Ulan-Ude)

Eliminating places with different track gauges. Put' i put.khoz.  
no.10:34 0 '58. (MIRA 11:12)

(Railroads--Track) (Railroads--Gauges)



DERYUGIN, P.S., mostovoy master (st. Ulan-Yde); RUKSHA, G.P.; FILATENKO, O.S.,  
brigadir puti (st. Chad Kazanskoy dorogi); GHEBCHUK, M.P., dorozhnyy  
master (st. Korosten'); ROSNOVSKIY, G.F. (st. Krasne L'vovskoy dorogi);  
ROSNOVSKIY, G.F. (st. Krasne L'vovskoy dorogi); KONDRASHOV, A.I.,  
brigadir puti (st. Gryazi-Voronezhskiy Yugo-Vostochnoy dorogi).

Letters to the editor. Put' i put. khoz. no.2:38-39 F '59.  
(MIRA 12:3)

1. Nachal'nik otdela puti i sooruzheniy g. Leningrad (for Ruksha).
  2. Zamestitel' nauchal'nika distantsii puti (st. Krasne L'vovskoy  
dorogi (for Rosnovskiy).
- (Railroads--Track)

DERYUGIN, P.S., mostovoy master (g.Ulan-Ude)

Reinforced concrete bridges instead of metal ones. Put' i put.  
khoz. no.8:29 Ag '59. (MIRA 13:3)  
(Railroad bridges)

LEYBZON, Z.I., kand. tekhn. nauk; MINKIN, M.I., kand. tekhn. nauk;  
DERYUGIN, P.Ye.

Influence of air temperature and humidity on the efficiency  
indices of the GAZ 21A engine. Avt. prom. 30 no.12:5-9 D '64.  
(MIRA 18:2)

1. Tsentral'nyy ordena Trudovogo Krasnogo Znameni nauchno-  
issledovatel'skiy avtomobil'nyy i avtomotornyy institut.

ACC NR: AR6036312 SOURCE CODE: UR/0273/66/000/009/0033/0033

AUTHOR: Leybzon, Z. I.; Deryugin, P. Ye.; Lagover, A. M.

TITLE: Effect of temperature and air humidity on the efficiency characteristics of the YaMZ-238NB diesel engine

SOURCE: Ref. zh. Dvigateli vnutrennogo sgoraniya, Abs. 9.39.218

REF SOURCE: Tr. Tsentr. n.-i. avtomob. i avtomotorn. in-ta, vyp. 83, 1966, 23-32

TOPIC TAGS: diesel engine, fuel consumption, tropic vehicle, turbosupercharged engine/YaMZ 238NB diesel engine

ABSTRACT: The results are presented of an investigation of the performance of a YaMZ-238NB diesel engine with a turbocharger in a tropical chamber. The drop in engine power caused by raised air temperatures resulted in a higher per-unit fuel consumption, notwithstanding the resultant power fuel feed cycle. At 1700 rpm with a full fuel feed and with a temperature increase from 16.8 to 66.1 degrees,  $g_e$  increased from 179 to 193 gram per horsepower-hour. The reduction of excess air factor due to less air in the charge of the cylinders on the

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UDC: 621.436.001.4

ACC NR: AR6036312

one hand and the hourly fuel consumption on the other are the main reasons for power loss and lower engine efficiency, respectively. Both the smoke point and the temperature of exhaust gases are at an increased level. Tests also established that increased relative humidity within specific limits decreases the level of the drop in pressure feed with increasing revolutions of the crank shaft. With an increase in relative humidity from 20 to 80%, the pressure drop at the compressor outlet was 8.5% at 1100 rpm, 6.2% at 1300 rpm, 3.8% at 1500 rpm, and 1.6% at 1700 rpm. The deterioration of performance caused by increased relative humidity at all operating speeds led to a higher smoke point of exhaust gases, a considerable drop in their temperature, a drop in engine power, and an increase in per-unit fuel consumption. [KP]

SUB CODE: 21/

Cord 2/2

DERYUGIN, S.M.

LIPENKOV, Yakov Yakovlevich; ~~DERYUGIN, S.M.~~, retsentsent; GUSEVA, Ye. M.,  
redaktor; EL'KINA, E.M., tekhnicheskii redaktor.

[General technology of wool.] Obshchaya tekhnologiya shersti. Izd.  
2-e ispr. i dop. Moskva, Gos. nauchn.-tekhn. izd-vo Ministerstva  
promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954. 172 p.  
(Wool industry) (MIRA 8:3)

STEWART, T. J., (S-1)

Dissertation: "Effectiveness of Separate Combing of Wool and Staple Fiber with the Application of Hot Working of the Strip in a Free Condition." Cand Tech Sci, Moscow Textile Inst, 20 May 54. Vechernyaya Moskva, Moscow, 11 May 54.

SO: SUM 284, 26 Nov 1954

DERYUGIN, Sergey Matveyevich; OZEROV, Boris Viktorovich; KOPPELEVICH, Ye.I.,  
redaktor; GASTEV, A.P., retsenzent; EL'KINA, E.M., tekhnicheskii  
redaktor

[Organizing, assembling, repairing and adjusting of continuous-  
action spinning looms (spinning of fine wool)] Ustroistvo, mon-  
tazh, remont i naladka priadil'nykh mashin nepreryvnogo deistviia  
(grevennoe priadenie tonkoi sherstvi). Moskva, Gos.nauchno-tekhn.  
izd-vo Ministerstva tekstil'noi promyshl. SSSR, 1955. 207 p.

(MLRA 9:3)

(Spinning machinery) (Woolen and worsted spinning)



DERYUGIN, V. A.

DERYUGIN, Sergey Matveyevich; KISELEV, M.A., retsenzent; ZAYTSEVA, T.M., red.;  
KOGAN, V.V., tekhn.red.

[Operation and maintenance of spinning machinery; comb spinning of  
thin wool] Ustroistvo i obsluzhivanie priadil'nykh mashin;  
grebennoe priadenie tonkoi shertsii. Moskva, Gos.nauchno-tekhn.  
izd-vo lit-ry po legkoi promyshl., 1957. 150 p. (MIRA 11:1)  
(Spinning machinery)

NESTEROVICH, N.D. [Nestsierovich, M.D.]; DERYUGINA, T.F. [Dziaruhina, T.F.]

Change in the anatomical structure of the leaves of European birch and the needles of Scotch pine growing in various forest types. Vestsi AN BSSR. Ser. biol. nav. no.2:5-10 '65. (MIRA 18:12)

DERYUGIN, V., podpolkovnik

Organization of communications. Voen.vest. 41 no.12:41-43 D '61.

(MIRA 15:3)

(Communications, Military)

DERYUGIN, V.G.; KHANIN, I.M.

Method of investigating the flow of gases in the horizontal flues  
of coke oven batteries. Trudy DKHTI no.16:159-167 '63.

(MIRA 17:2)

DERYUGIN, V.K., insh.

Welding cathodic protection rods with ferroaluminum thermite.

Stroi. Truboprov. 6 no.7:19-20 JI '61.

(MIRA 14:8)

1. Treb. Ukgazneftestroy, Kiyev.

(Aluminothermy) (Pipe-Welding)

POPOV, N.A., prof.; ORENTLIKHER, L.P., kand.tekhn.nauk; ~~DERYUGIN,~~  
~~V.M., inzh.~~; SOKOL'SKIY, I.F., red. izd-va; TARKHOVA, K.Ye.,  
tekhn. red.

[Quick-hardening lightweight concretes of wet ground cement]  
Bystrotverdelushchie legkie betony na tsemente mokrogo domola.  
Pod red. N.A.Popova. Moskva, Gosstroizdat, 1963. 147 p.  
(MIRA 16:6)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury  
SSSR (for Popov).

(Cement) (Concrete)

POPOV, N.A., prof.; ORENTLIKHER, L.P., kand. tekhn. nauk; DERYUGIN,  
V.M., inzh.; ORENTLIKHER, L.P., kand. tekhn. nauk;  
SOKOL'SKIY, I.F., red. izd-va; TARKHOVA, K.Ye., tekhn. red.

[Quick-hardening lightweight concretes made with wet-ground  
dement] Bystrytverdeiushchie legkie betony na tsemente mok-  
rogo domola. Pod red. N.A. Popova. Moskva, Gosstroizdat,  
1963. 147 p. (MIRA 16:5)

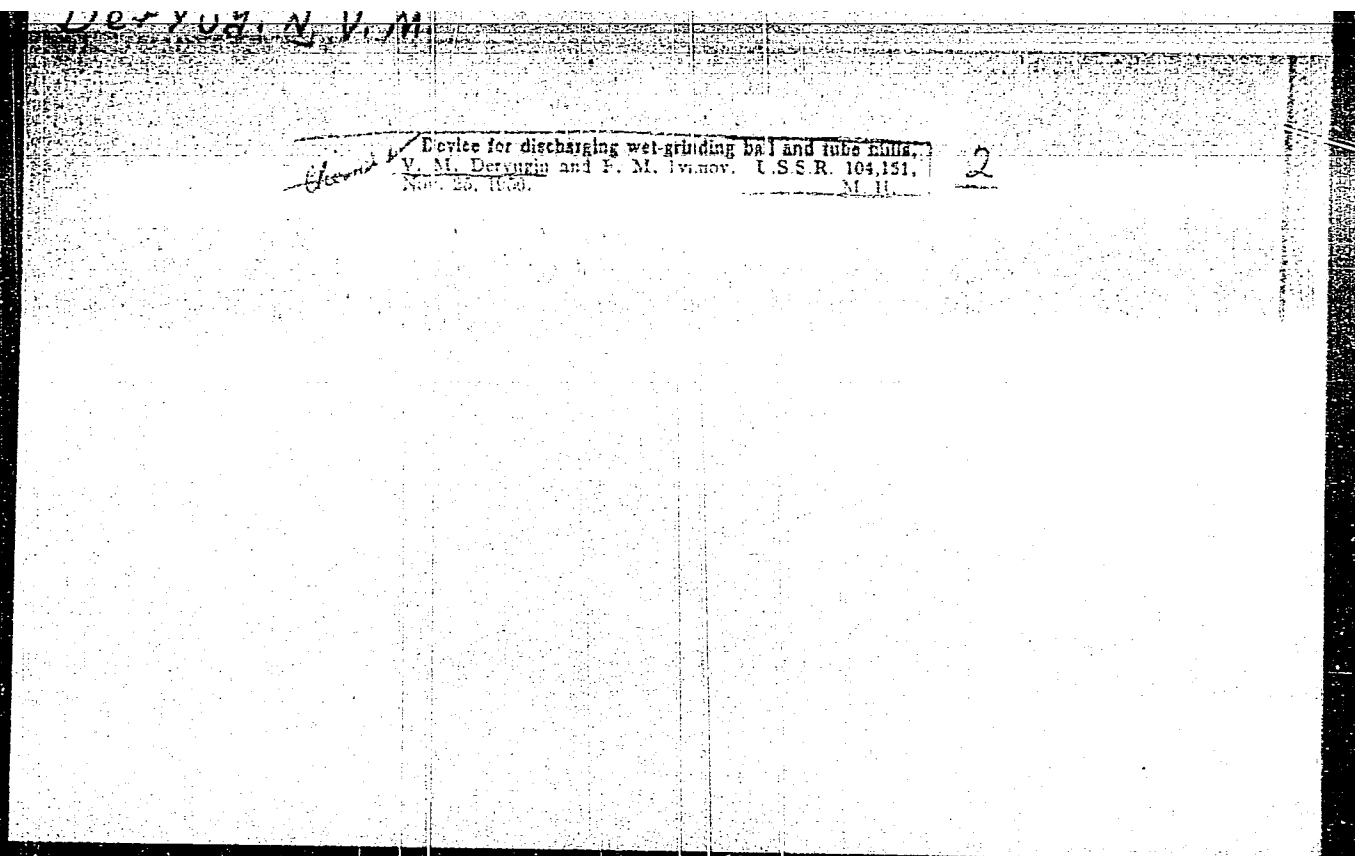
1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury  
SSSR (for Popov).

(Lightweight concrete) (Cement)

SSR

SSS. New discharge arrangement for wet-grinding ball mills.—Y. M. DERYUGIN and P. M. IVANOV (*Mech. Constr.*, Moscow, 2, No. 7, 1954).





IVANOV, F.M., kandidat tekhnicheskikh nauk; DERYUGIN, V.M., inzhener.

Operation of cement-grinding vibration mills. Mekh.stroi. 13 no.10:  
6-9 0 '56. (MLBA 9:11)

(Milling machinery)

DERYUGIN, V.M., kand.tekhn.nauk

Letter to the editor. Energomashinostroenie 4 no.4:38 Apr '58.

(MIRA 11:7)

(Heat--Transmission)

DERYUGIN, V.M.

24(8) **PHASE I BOOK EXPOSITION** **SOV/3501**  
Akademika nauk SSSR. Energeticheskii Institut  
Voprosy teploobmena (Heat-Exchange Problems) Moscow, 1959. 237 p. Errata slip inserted. 2,800 copies printed.  
Resp. Ed.: M.A. Mikheyev, Academician; Ed. of Publishing House: G.B. Gorskhoi; Tech. Ed.: I.P. Kuz'min.  
**PURPOSE:** This collection of articles is intended for scientific workers, engineers, and postgraduate students specializing in thermodynamics.  
**CONTENTS:** The collection reviews problems of heat transfer and explores possibilities of expanding heat exchange. The heat-exchange theory is outlined, and physical scientists who contributed to its development are mentioned. Thermophysical properties of some molten metals and alloys are analyzed, and methods used to determine them presented. Equipment used for assuring thermal conductivity, heat capacity, and heat-conductivity measurements are discussed. Results of experimental studies of the intensified heat exchange for a water flow in an annular channel are analyzed and the instruments used along with the results are described. Instruments and equipment used for determining the linear expansion of metals, the conduction of a liquid, and the absorption capacity of a surface are also described and illustrated. A number of equations for solving various thermodynamic problems are presented. Each article is accompanied by references, the majority of which are Soviet.

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Mironov, M.Ye., V.I. Shchegolev, P.A. Shchegolev, and A.A. Shchegolev. Utilization of a Microthermocouple in Studying Heat Transfer	192
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21 (9), 10 (4)

S/170/59/002/12/001/02:

AUTHORS: Deryugin, V. M., Fedynskiy, O. S.

B014/B014

TITLE: Heat Transfer in the Transition Flow of Liquid Metals in Tubes

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Vol 2, Nr. 12, pp 3 - 10 (USSR)

ABSTRACT: The experiments described were carried out at the Laboratoriya teploobmena Energeticheskogo instituta AN SSSR (Laboratory for Heat Exchange of the Institute of Power Engineering of the AS USSR) with the assistance of G. M. Chizhevskaya, student of engineering, the technician L. I. Kochetkova, and the mechanic A. V. Belyakov. The experimental setup shown in figure 1 is used to study the unsteadiness of motion of the heat carrier, which is caused by the conditions at the inlet, primary turbulence, the condition of the surface, etc. The delivery of the heat carrier, its temperature in front of and behind the heat exchanger, the temperature of the walls of the heat exchanger over its entire length, and the electric power of the heater were measured in these experiments. The mean heat-exchange coefficient was determined by means of thermocouples arranged on the walls of the exchanger. The temperature of the heat carrier was assumed to be the arithmetic mean of its temperatures

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Heat Transfer in the Transition Flow of Liquid Metals  
in Tubes

S/170/59/002/12/001/021  
B014/B014

in front of and behind the heat exchanger. Visual checking of the inner surface of the tubes after the experiments showed that tubes of stainless steel are not wetted by mercury. A thin layer is, however, applied to the inner surface of nickel tubes by a eutectic potassium - sodium alloy. This layer could not be removed by mechanical means. Results of measuring the mean heat-exchange coefficient are diagrammatically shown in figure 2 for the case in which mercury flows through a straight tube of stainless steel. This diagram indicates that during the transition of a turbulent flow to a laminar one, heat emission is continuously reduced. In the case of the potassium - sodium alloy it is shown that the heat emission of the alloy is considerably changed within the range of critical flow. This change is ascribed to the wetting power of the alloy. Equation (1) is used to estimate the heat-exchange coefficient of non-wetting liquid metals, and equation (2) is given for wetting liquid metals. This article is concluded with a discussion of the two nomograms shown in figure 4, which are used to calculate the local heat-exchange coefficient of wetting and non-wetting metals. There are 4 figures and 4 Soviet references.

Card 2/3

AUTHOR: Deryugin, V. Ye.

SOV/130-58-11-4/16

TITLE: Blast-Furnace Operation with a Sized Charge (Rabota domennoy pechi na shikhte sortirovannoy po krupnosti)

PERIODICAL: Metallurg, 1958, Nr 11, pp 10 - 12 (USSR)

ABSTRACT: Dealing with the article by V.Ye. Levchenko published in "Metallurg", 1958, Nr 5, the author maintains that variation in chemical composition of ores is an important factor restricting operating efficiency. He describes the improvement in productivity at the small blast furnaces ~~Nizhnaya Salda metallurgical~~ works where mixing of the Atasuyskiy lump ores was effected (the coefficient of utilization of furnace volume improved from 0.9 to 0.8-0.75 with a slag basicity of 1.05). He does not agree with Levchenko's view that sizing is the reason for the high efficiency of the Domnarvet (Sweden) furnace,

Card 1/2



SOV/130-58-11-4/16

Blast Furnace Operation with a Sized Charge

considering that the high iron content of the burden is the main factor. He doubts that burden sizing would achieve useful results and urges that priority be given to concentration at the mine.

ASSOCIATION: Saldinskiy metallurgicheskiy zavod (Nizhnyaya Salda Metallurgical Works)

Card 2/2

DERYUGIN, V.Ye.

Desulfuration of cast iron outside the blast furnace. Metallurg  
9 no.11:7 N '64. (MIRA 18:2)

1. Master (mennogo tsekha Nizhne-Saldinskogo metallurgicheskogo  
zavoda.

DERYUGINA, A.V.

Results of the treatment in cancer of the gallbladder. Vest. khir.  
93 no.12:32-35 D '64. (MIRA 18:5)

1. Iz 1-y kliniki obshchey khirurgii (zav. - prof. A.V.Smirnov)  
Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

BARBUKOV, V.L.; DERYUGINA, N.N.

Experimental investigation of the conditions of formation  
of kotoite-ascharite ores. Geokhimiia no.1:55-59 '60.  
(MIRA 13:6)

1. V.I.Vernadskiy Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences, U.S.S.R., Moscow.  
(Snaibelyite) (Kotoite)

S/007/61/000/003/003/004  
B107/B206

AUTHORS: Barsukov, V. L., Deryugina, N. N.

TITLE: Some experimental data on the formation conditions of  
danburite and datolite

PERIODICAL: Geokhimiya, no. 3, 1961, 252-257

TEXT: This article gives the results of 10 syntheses of danburite and datolite, at 400°C and 350 kg/cm<sup>2</sup>. The apparatus used for the synthesis has been described in a previous article (Ref. 1: V. L. Barsukov, N. N. Deryugina. Geokhimiya, no. 1, 1960). The initial solution consisted of water, borax, calcium chloride, and the corresponding amount of hydrochloric acid for adjusting the pH. A possible calcium-hydroxide precipitate was filtered off. In two experiments, sodium meta-silicate was added. Into this solution a basket was hung with a mixture of calcite:quartz = 3:1 (experiments 1-7, 10) or with pure calcite. Detailed data are contained in Table 1. ✓

Card 1/6

Some experimental ...

S/007/61/000/003/003/004  
B107/B206

No.	t in	°C	duration	composition of the of exper- liquid phase iment	pH in.	pH after	result
1.	400	350	24 hr	250ml H <sub>2</sub> O+8g borax + HCl	6.35	6.31	little danburite, single datolite granules
2.	390	320	10 hr	250ml H <sub>2</sub> O+10g borax+ HCl	7.58	7.28	danburite
3.	360	180	10 hr	275ml H <sub>2</sub> O+10g borax + 2g CaCl <sub>2</sub> +HCl, Ca(OH) <sub>2</sub> filtered off	8.50	7.50	danburite
4.	400	350	24 hr	250ml H <sub>2</sub> O+10g borax + 2g CaCl <sub>2</sub> +HCl, Ca(OH) <sub>2</sub> filtered off	8.35	7.90	danburite, datolite
5.	400	350	22 hr	275ml H <sub>2</sub> O+10g borax + 1g CaCl <sub>2</sub> , Ca(OH) <sub>2</sub> not filtered off CO <sub>2</sub> atmosphere	9.03	8.20	calcite on dan- burite, danburite on datolite

Card 2/6

Some experimental ...

S/007/61/000/003/003/004  
B107/B206

No.	t in °C	duration	composition of the of exper- liquid phase iment	pH in.	pH after	result
6.	400	350	8 hr	250ml H <sub>2</sub> O+5g borax + 1g CaCl <sub>2</sub> +HCl, Ca(OH) <sub>2</sub> filtered off	8.60 8.00	calcite on dan- burite, in between datolite
7.	400	350	24 hr	250ml H <sub>2</sub> O+10g borax+ HCl	8.45 8.35	datolite, danburite
8.	400	350	13.5 hr	250ml H <sub>2</sub> O+10g borax + 1g CaCl <sub>2</sub> +HCl+0.5g Na <sub>2</sub> SiO <sub>3</sub> Ca(OH) <sub>2</sub> filtered off	8.50 -	calcite on danburite, quartz + datolite
9.	400	350	15 hr	250ml H <sub>2</sub> O+10g borax+ 2g Na <sub>2</sub> SiO <sub>3</sub> +HCl upto pH 8.7 + 2g CaCl <sub>2</sub> , Ca(OH) <sub>2</sub> filtered off	8.32 8.27	calcite on datolite, danburite, quartz
10.	400	350	23 hr	250ml filtrate of a lime suspension + 5g borax+HCl	9.10 8.80	lime remains unchanged

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S/007/61/000/003/003/004  
B107/B206

Some experimental ...

The synthesis products were microscopically investigated in the transparent cut; X-ray pictures (Tables 2 and 3) of 2 specimens (nos. 2 and 7) were taken. It was thus shown experimentally that danburite forms predominantly at 360-400°C and 350 kg/cm<sup>2</sup> if the initial solution has a pH of from 6.3 to 8.0, and datolite predominantly at a pH of from 8.0 to 8.5. Further investigations concerning the dependence of pressure, temperature, pH and concentration of the initial solution are planned. There are 3 figures, 3 tables and 1 Soviet-bloc reference.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im V. I. Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, AS USSR Moscow)

SUBMITTED: October 19, 1960

Legend to the Tables: Table 1: X-ray diagram of danburite, chromium radiation, vanadium filter, diameter of the preparation 0.5 mm. The diagrams were recorded by K. I. Tobelko and A. I. Volkova, GYeOKhI AN SSSR (see Association); Table 3: X-ray diagram of datolite from experiment No. 7.

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S/007/61/000/003/003/004  
B107/B206

Some experimental ...

Conditions as above, (1) danburite from experiment No. 2, (2) danburite according to the manual by Mikheyev, (3) datolite according to the manual by Mikheyev, (4) calcite according to the manual by Mikheyev, (5) datolite from experiment No. 7.

Table 2

Данбурит из опыта № 2		Данбурит по справочнику Михеева		Датолит по справочнику Михеева		Кальцит по справочнику Михеева	
l	d	l	d	l	d	l	d
2	3,86	6	3,96			7	3,49
2	3,41	6	3,41			5	3,24
2	3,26	6	3,24				
10	3,02	9	2,99				
4	2,91	9	2,73				
3	2,49			5	2,49	10	2,81
7	2,28			6	2,277	10	2,49
1	2,22						
2	2,16	7	2,14			9	2,23
6	2,09	5	2,02	7	2,088	9	2,10
1	1,963					5	2,06
8	1,907	2	1,97			6	1,97
7	1,868						
2	1,781	2	1,76				
2	1,711	7	1,72			5	1,76
6	1,599					6	1,72

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2	1,539		
4	1,521	2	1,524
2	1,483	5	1,498
2	1,458		
3	1,436		
3	1,419		
1	1,333	2	1,330
3	1,294		
1	1,281	2	1,285

Some experimental ...

S/007/61/000/003/003/004  
B107/B206

Table 3

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Датуми из оплата № 7		Датуми по спра- вочнику Миксева		Датуми по спра- вочнику Миксева		Датуми по спра- вочнику Миксева		Коліквіт по справочнику Миксева	
l	d	l	d	l	d	l	d	l	d
0	3,96	7	3,40	6	3,96	4	3,339		
3	3,42			6	3,41				
3	3,34								
1	3,25	5	3,24	6	3,24				
10	2,98			9	2,99				
4	2,89								
8	2,78	10	2,81	9	2,73				
9	2,68	2	2,61						
9	2,51	2	2,49						
4	2,26	10	2,28						
2	2,22	2	2,23						
8	2,14	9	2,16	7	2,14				
2	2,04	9	2,06	5	2,02				
5	1,975	5	1,07						
2	1,897	6		2	1,91				
2	1,812								
4	1,754	5	1,78	2	1,76				
5	1,699	6	1,72	7	1,72				
2	1,676								
7	1,521								
3	1,556			2	1,522				
4	1,528			5	1,498				
4	1,501								
5	1,488								
3	1,453								
3	1,431								
3	1,407								
2	1,389								
2	1,367								
3	1,333			2	1,330				
5	1,283			2	1,285				
5	2,257								

✓

NESTEROVICH, N.D. [Nestorovich, M.D.]; PONOMAREVA, A.V. [Ponomareva, A.V.]; DERYUGINA, T.F. [Dziarukina, T.F.]

Change in the anatomical structure of the needles of some trees  
in relation to their age and the height of their position on  
the tree. Vestsi AN BSSR, ser. biol. nav. no.385-13 '67  
(MIRA 1967)

PONOMAREVA, A.V. [Panamarova, A.V.]; DERYUGINA, T.F. [Dziaruhina, T.F.]

Characteristics of the anatomical structure of the epidermis of  
leaves in some tree species. Vestsi AN BSSR. Ser. biial. nav.  
no.2:28-33 '64. (MIRA 17:11)

NESTEROVICH, N.D.; PONOMAREVA, A.V.; DERYUGINA, T.F.

Changes in the anatomical structure of leaves of some trees  
depending on soil moisture. Bot.; issl.Bel.otd.VBO no.7:91-  
94 '65. (MIRA 18:12)

*DERYUGINA*  
SVIATOGOR, Valentin Andreyevich, kandidat biologicheskikh nauk; DERYUGINA,  
V.N., redaktor; AKHANOV, TS.B., tekhnicheskiy redaktor

[Forage plants of Buryat-Mongolia; description and catalog of  
forage plants of the Republic] Kormovye rasteniia Buriat-  
Mongol'skoi ASSR; opisanie i opredelitel' kormovykh rastenii  
respubliki. Ulan-Ude, Buriat-Mongol'skoe knizhnoe izd-vo,  
1956. 209 p. (MLBA 10:7)  
(Buryat-Mongolia--Forage plants)

GUSEV, Oleg Vladimirovich; DERYUGINA, V.N., red.; BRAYNINA, M.I.,  
tekhn. red.

[Ice crossings] Perepravy po l'du. Leningrad, Gidrometeor. izd-  
vo, 1961. 16 p. (MIRA 15:1)

(Ice crossings)

EYPRE, Tiit Fridrikhovich [Eipre Tiit]; UKHANOV, V.V., kand. tekhn.  
nauk, red.; DERYUGINA, V.N., red.; BRAYNINA, M.I., tekhn.  
red.

[Analysis of methods used in computing daily discharges of  
rivers] Analiz sposobov vychisleniia ezhednevnykh raskhodov  
vody redk. Pod red. V.V.Ukhanova. Leeningrad, Gidrometeor.  
izd-vo, 1961. 90 p. 11 diagrs. (MIRA 15:3)  
(Stream measurements)



BAKHTIN, Nikolay Prokop'yevich; POPOV, I.V., otv. red.; DERYUGINA, V.N.,  
red.; RUSAKOVA, G.Ya., red.; VOLKOV, N.V., tekhn. red.

[The Yenisey River] Reka Enisei. Leningrad, Gidrometeor. izd-  
vo, 1961. 122 p. (MIRA 15:5)  
(Yenisey River)

ROMANOVA, Yefrosiniya Andreyevna; IVANOV, K.Ye., doktor geogr. nauk,  
otv. red.; DERYUGINA, V.N., red.; SERGEYEV, A.N., tekhn.  
red.

[Geobotanical foundations for a hydrological study of high-  
moors using aerial photography] Geobotanicheskie osnovy gidro-  
logicheskogo izucheniia verkhovykh bolot (s ispol'zovaniem  
aerofotos'emki). Leningrad, Gidrometeor. izd-vo, 1961. 243 p.  
(MIRA 15:3)

(Russia, Northwestern--Swamps)

KUZ'MIN, Prokopy Pavlovich; ROMANOV, V.V., kand. tekhn. nauk, otv.  
red.; DERYUGINA, V.N., red.; BRAYNINA, M.I., tekhn. red.

[The process of the melting of snow] Protsess taiania snezhnogo  
pokrova. Leningrad, Gidrometeor.izd-vo, 1961. 344 p.  
(MIRA 15:1)

(Thawing)

(Snow)

ROMANOV, Vladimir Vasil'yevich; IVANOV, K.Ye., doktor geogr. nauk,  
otv. red.; DERYUGINA, V.N., red.; SERGEYEV, A.N., tekhn.  
red.

[Evaporation from swamps in the European part of the U.S.S.R.]  
Isparenie s bolot Evropeiskoi territorii SSSR. Leningrad,  
Gidrometeoizdat, 1962. 227 p. (MIRA 15:9)  
(Swamps) (Evaporation)

VELIKANOV, Mikhail Andreyevich; DERYUGINA, V.N., red.; ALEKSEYEV,  
A.G., tekhn. red.

[Measurement errors and empirical relationships] Oshibki iz-  
mereniia i empiricheskie zavisimosti. Leningrad, Gidro-  
meteoizdat, 1962. 301 p. (MIRA 15:8)  
(Errors, Theory of ) (Mensuration)

VOSKRESENSKIY, Konstantin Petrovich; ANDREYANOV, V.G., doktor tekhn. nauk, otv. red.; DERYUGINA, V.N., red.; NEDOSHIVINA, T.G., red.; ALEKSEYEV, A.G., tekhn. red.; VOLKOV, N.V., tekhn. red.

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Abs Jour : Ref Zhur - Biol., No 2, 1958, 9113

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Inst : -

Title : Sweating Reactions of the Palm

Orig Pub : Byul. eksperim. biol. i meditsiny, 1957, 43, No 2, 26-29

Abstract : Electrometric measurement was made the sweating intensity and sensitivity to thermal and general stimulation of the sweat glands of the palms and the backs of the wrists of 300 children and 70 adults. The sweat glands of the palms of both children and adults showed a distinct reaction to stimulation by heat. The intensity of palmar sweating varies with age and reaches a maximum at age 2½ to 5. The sweat gland of the palms are very sensitive to reflex stimulation, and for this reason palmar sweating is greater under ordinary conditions than that of other parts of the body. There is no basis for suggesting the separate

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2. USSR 600
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12048

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Aug 1947

USSR/Textiles 4415.0600

"We Are Perfecting Technology," V. G. Deryuzhkin,  
Chief Eng. of Stakelkovsky Cotton-textile Combine,

2 FF

"Tekstil Prom" Vol VII, No 8

Detailed description of changes made in machinery to improve efficiency of production of this combine:  
elevation of the ring-spinning frame was raised from 5 inches to 6.5 inches, length of the bobbin was increased from 145 to 185 mm, consequently the amount of thread wound was increased from 680 to 1,200 m, shuttle No 1a was lengthened 10 mm, the width and height were diminished 5 mm, 22-toothed worm wheel was replaced by 44-toothed worm wheel permitting 1,350 = 12048

Aug 1947

LC  
USSR/Textiles 4415.0600 (Contd)

1,400 m of thread to be wound, production of No 12 yarn transferred from the ring-spinning frames having a girdle of 1 1/4 inches in diameter (elevation 6 inches) to those with a girdle of 1 1/2 inches in diameter. Some personalities named. Reference made to productivity of equipment in units.

12048

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